



Backcountry Planner

The official backcountry planner
of Zion National Park
Summer 2009



Be Prepared, Plan Well, Live Long

Trips into the Zion backcountry, even short ones, require advance planning. Summer weather is hot and dry, winter can be cold and icy, narrow canyons are subject to flash flooding, and there are

cliffs everywhere. Rangers at the Kolob Canyons and Zion Canyon Visitor Centers can help by providing current conditions, weather forecasts, and National Weather Service flash flood potential

ratings. But your safety is your responsibility. Every year, a number of people are seriously injured or die while visiting the backcountry of Zion. Your safety

depends on your own good judgement, adequate preparation, and constant attention. Don't let an accident ruin your vacation.

Planning Your Trip

Permits

Permits are required for overnight trips in the backcountry (including climbing bivouacs), through hikes of the Virgin River and tributaries, and canyons requiring the use of descending gear or ropes (including the Subway). Permits are available the day before or the day of a trip at both visitor centers.

Reservations

Reservations are available for many backcountry trips. See page 8 or visit www.nps.gov.

Group Size

Large groups produce larger impacts. Group size is limited to a maximum of 6 or 12 people sharing the same affiliation (school, club, scout troop, family, friends). Larger groups may split and visit different areas. They may not visit the same drainage, route, or backcountry trail, on the same day. This is strictly enforced; violators are cited. The group size limit does not apply to trails in Zion Canyon including Emerald Pools, Angels Landing, Observation Point, and The Narrows to Orderville Canyon.

[gov/zion](http://www.nps.gov/zion). Reservations are available on-line until 5 p.m. the day before your trip.

Walk-in Permits

Walk-in permits are available for all areas in Zion National Park. At least 25% of all permits are available for walk-ins. Walk-in permits are given out the day before, or the day of your trip. Arrive early if you wish to visit a popular area, such as the Subway, on a summer weekend. See page 8 or visit www.nps.gov/zion for more information.

On-line Permits

Frequent visitors can obtain permits on-line through our Zion Express Permit Program. See page 8 or visit www.nps.gov/zion for more information. Express permit members can get permits three days before their trip. For example, canyoneers wanting trips on Thursday, Friday, and Saturday can get all three permits on-line Wednesday. Avoid lines, use express permits!

Permit Fees

Backcountry fees are based on group size: \$10 for 1 to 2 people, \$15 for 3 to 7 people, \$20 for 8 to 12 people. Fees are used to

help defray the cost of issuing permits, backcountry patrol, resource monitoring, trail maintenance, and search and rescue.

Zion Canyon Shuttle

Travel in Zion Canyon from March 21 to November 2 is by shuttle bus only. The buses have room for backpacks, climbing gear, two bicycles, and other equipment. Buses run often throughout the day. You may get on and off as often as you like. The buses are free. Check the schedule, page 3. *If your hike ends at a trailhead in Zion Canyon, plan your trip so you will not miss the last shuttle of the day.* Only the Zion Canyon Scenic Drive is closed to private vehicles; the Zion-Mt Carmel Highway through the park is open to private vehicles all year.

Backcountry News


The Spry Canyon use limit has been raised from 12 to 20 people a day because the erosion problem has been reduced. Six designated campsites have been created in the Southwest Desert to protect cryptobiotic crust. Narrows campsite 8 has been relocated away from flashflood danger. Sites 6, 7, and 8 have been renumbered.

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Permits Hours

Fall 2008 - April 25, 2009	
8 a.m. – 4:30 p.m.	Zion Canyon
8 a.m. – 4:30 p.m.	Kolob Canyons
April 26 – May 21	
7 a.m. – 6 p.m.	Zion Canyon
8 a.m. – 5 p.m.	Kolob Canyons
May 22 – September 7	
7 a.m. – 8 p.m.	Zion Canyon
8 a.m. – 5 p.m.	Kolob Canyons
September 8 – October 12	
7 a.m. – 6 p.m.	Zion Canyon
8 a.m. – 5 p.m.	Kolob Canyons
October 13 – Spring 2010	
8 a.m. – 4:30 p.m.	Zion Canyon
8 a.m. – 4:30 p.m.	Kolob Canyons



National Park Service
U.S. Department of the Interior

Zion National Park

Superintendent
Jock Whitworth

Mailing Address
Zion National Park
Springdale, Utah 84767

Web Site
www.nps.gov/zion

Park Headquarters
435 772-3256
Fax 435 772-3426
Backcountry Information 435 772-0170

E-mail
ZION_park_information@nps.gov

Employment Information
www.usajobs.opm.gov. Seasonal jobs
are listed on: www.sep.nps.gov.

Emergencies
Call 911 or 772-3322 24 hours a day or
contact a Park Ranger.

Lost and Found
Report at any visitor center.

General Information

Emergencies

For 24-hour emergency response, call 435 772-3322 or 911. Zion Canyon Medi-cal Clinic is in Springdale, call for hours, 772-3226. The nearest hospitals are in St. George, Cedar City, and Kanab.

Weather

Check weather forecasts at visitor centers or the National Weather Service web site: www.weather.gov.

Treat Your Water

Water collected in the backcountry is not safe to drink without treating it. There are two methods. •Boil: Bring water to a rolling boil for one minute. Add an additional min-ute for each 1,000 feet above sea level. •Filter and disinfect: Filter through an “absolute” 1 micron filter, or one labeled as meeting ANSI/NSF International Standard #53. Then add eight drops of liquid chlo-rine bleach, or four drops of iodine, per gallon of water and let stand for 30 minutes.

Bicycles and Other Vehicles

Bicycles and other vehicles are not allowed off roadways. Bicycles are allowed on the Pa’rus Trail. When riding from the south entrance, use the Pa’rus Trail instead of the main road. Shuttles will not pass moving bicycles. If you want a bus to pass, pull over and stop. Do not pass a moving shuttle. Ride on the right side of the road in single file. Wear your helmet. Shuttles have racks for two bicycles.

Pets, Fires, & Firearms

Pets are not allowed on backcountry trails. Even well-behaved pets may disrupt wild-life and other visitors. Campfires are not allowed in the backcountry. Use a gas stove. Firearms are prohibited.

Transportation

You may choose to complete your hike at a different location from your starting point. Private shuttle and taxi services are avail-able. Inquire at the backcountry desk.



Carry enough water—one gallon per person per day—and drink it. Carry a map and know how to use it. Being prepared could save your life.

Shuttle Schedule

THE ZION CANYON SCENIC DRIVE IS BY SHUTTLE ONLY FROM APRIL 4 TO OCTOBER 25, 2009. *Private vehicles are not allowed.* Plan your trip to include using the shuttle. There is room for backpacks and climbing equipment. Buses are fully accessible. *Pets are not allowed.*

Spring & Fall

April 4-May 16 & Sept. 13-Oct. 25

Zion Canyon Loop

Visitor Center departures

first bus	6:45 am
15 minute service	7-8:30 am
7-10 minute service	8:30 am-8 pm
15 minute service	8-9 pm
last bus	9:30 pm
last departure from Temple of Sinawava	10 pm
Springdale Loop	
Express bus up-canyon leaves Majestic View	6:30 am
Zion Canyon Theater departures	
first bus	7:15 am
10-15 minute service	7:45 am-10 pm
last bus	10 pm
last departure from Majestic View	10:15 pm

Summer

May 17-Sept. 12

Zion Canyon Loop

Visitor Center departures

first bus	5:45 am
10-15 minute service	6:30-9 am
6-10 minute service	9 am-8 pm
15 minute service	8-9 pm
30 minute service	9-10:30 pm
last bus	10:30 pm
last departure from Temple of Sinawava	11 pm

Springdale Loop

Express bus up-canyon leaves Majestic View	5:30 am
Zion Canyon Theater departures	
first bus	7 am
10-15 minute service	7 am-10 pm
30 minute service	10-11 pm
last bus	11 pm
last departure from Majestic View	11:15 pm

November

Voluntary shuttle on weekends; Zion Canyon Loop only. Check for schedule.

Climbing

ZION’S 2000-FOOT CLIFFS ARE WORLD RENOWNED FOR THEIR BIG WALL CLIMBS. ZION IS NOT A place for inexperienced climbers. There are few top roping areas, and no sport climbs. Permits are not required for day climbs, but they are required for all overnight bivouacs. Notebooks of route descriptions are kept at the Zion Canyon Backcountry Desk.

Route Closures

Some rock formations and routes are closed to climbing from early March through August each year to protect nesting peregrine falcons. Some areas that are routinely closed include the Great White Throne, Cable Mountain, Court of the Patriarchs, and Angels Landing. Check at visitor centers or visit www.nps.gov/zion for current closures.

Minimum Impact Climbing

When approaching a climb, use established trails to prevent further erosion of slopes. It is illegal to camp at the base of the wall or in your vehicle. Tube or bag human waste and carry it out. Do not drop your waste. It is illegal to use power drills to place bolts. Never climb directly above trails where hikers may be hit by dislodged rocks.

Stock Use

HORSES HAVE TRADITIONALLY BEEN USED TO EXPLORE ZION’S RUGGED TERRAIN. STOCK ALLOWED are horses, mules, and burros. Llamas, dogs, goats, camels, and others are not allowed. Permits are not required for day trips. Stock is prohibited during spring thaws, unusually wet periods, or when they would cause trail damage. *Maximum group size is six animals.*

Where trails are present, stock must remain on trails. Free trailing or loose herding is not allowed. Stay at a slow walk when pass-ing hikers. When standing, stock must be kept at least 100 feet from drainages.

junction with Scoggins Wash, in Scoggins Wash proper, in upper Coalpits Wash above the springs, and in Huber Wash.

Overnight Trips

The only overnight stock camp is Hop Valley Site A and is limited to one night. A permit is required. Stock must be hobbled or tethered to reduce damage to vegetation. To reduce the spread of noxious and exotic weeds, stock must be fed certified weed-free hay two days prior to the trip.

Trails

Check the Backcountry Planning Map on pages 6 and 7 for trails open to stock use. Off-trail use is permitted only in Lower Coalpits Wash from the trailhead to the

Mountain Lions



MOUNTAIN LIONS ARE WILD ANIMALS AND CAN BE DANGEROUS. THEY HAVE BEEN OBSERVED frequently in the park. An attack by one is unlikely—there is a far greater risk of being struck by lightning. Zion National Park has never had a reported attack on people or pets. However, mountain lions have attacked in other areas.

Recommendations For Your Safety

- Watch children closely, and never let them run ahead or lag behind.
- Solo hiking or jogging is not recom-mended.
- Never approach a mountain lion. Most will try to avoid a confrontation. Always give them a way to escape.
- Do not run! Try to look large. Put your arms up.
- If a mountaion lion approaches, wave your arms, shout, and throw rocks or sticks at it.
- If attacked, fight back.
- Report any mountain lion sightings or encounters to a Park Ranger as soon as possible.

Watercraft

All watercraft use in the park requires a backcountry permit. Permits are issued when the river is flowing in excess of 140 cubic feet per second. Inner tubes are not permitted at any time on any watercourse within the park.

Winter

Elevations above 6000 feet are usually snow covered through the winter. Trails at lower elevations can be ice covered or muddy. In winter the Kolob Terrace Road is not plowed. Recreational use is limited to skis and snowshoes. Access to private property north of the park is permitted by snowmo-bile. ATVs/OHV’s are not permitted at any time.

Dilemma



What to do with used toilet paper?
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Bury it?



Burn it?



I know—I’ll carry it out in a plastic bag!

The Zion Narrows

The Virgin River has carved a spectacular gorge in the upper reaches of Zion Canyon: 16 miles long, up to 2000-feet deep, and at times only 20-30 feet wide. The Zion Narrows: walking in the shadow of its soaring walls, sandstone grottos, natural springs, and hanging gardens can be an unforgettable wilderness experience.

It is not, however, a trip to be underestimated. Hiking The Narrows means hiking *in* the Virgin River. At least 60% of the hike is spent wading, walking, and sometimes swimming in the river. There is no maintained trail; the route is the river. *The current is swift, the water is cold, and the rocks underfoot are slippery. Flash flooding and hypothermia are constant dangers.* Good planning, proper equipment, and sound judgement are essential for a safe and successful trip. *Your safety is your responsibility.*

Weather forecasts, flash flood potential ratings, and stream reports are available at the Zion Canyon Visitor Center, 435 772-0170. Permits are not issued when the flow is 120 cubic feet per second (cfs) or greater.

When to Hike the Narrows

Entering The Narrows is safest when the Virgin River is low, clear, and relatively warm. *Conditions change from day to day and are impossible to predict.* Check at the Zion Canyon Visitor Center for the latest weather forecast and possible advisories. Flash floods can occur at any time, but are more common in mid-summer and early fall. From November through May, trips through The Narrows require wetsuits or drysuits and special cold weather preparation. Spring snowmelt frequently causes the river to run at dangerously high levels March through early June.

Ways to Hike the Narrows

Day Hike From the Bottom and Back This is the easiest way to experience The Narrows. Ride the shuttle to the Temple of Sinawava, walk one mile to the end of the paved Riverside Walk, and begin wading up the river. Almost immediately the views are breathtaking, and each bend of the river brings new delights. There is no formal destination, and you return the same way you came. Many hikers try to reach Orderville Canyon, a tributary creek approximately two hours upstream from the end of the paved trail. In the vicinity of Orderville Canyon, The Narrows are at perhaps their most majestic. No permit is required for this day hike and group size limits do not apply. Travel upstream into Orderville Canyon or beyond Big Springs is prohibited.

Day Hike From Top to Bottom Walking the entire length of The Narrows can be a grueling experience. Under favorable conditions, the 16-mile route takes an average of 12 hours. Even for well-conditioned hikers, this makes for a long and strenuous day.

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Because the trailhead at Chamberlain’s Ranch is a 1½-hour drive from the Temple of Sinawava, either two vehicles or a shuttle is necessary. A backcountry permit is required. See page 8 or visit www.nps.gov/zion for more information on reservations and permits. Group size limits apply.

Overnight Hike From Top to Bottom To enjoy The Narrows at a more leisurely pace, some visitors choose to spend a night in the gorge. There are 11 numbered camp-sites, each located above the high water mark at a different spot along the route. Only one-night stays are allowed. Reservations are recommended for weekend trips. Campsite capacity is limited, and only one site can accommodate groups larger than six people.

Virgin River Water Quality Project

With the increase in recreational use along Zion National Park waterways, the National Park Service introduced a human waste disposal program for overnight users in The Narrows. An environmentally friendly human waste disposal bag, complete with use and disposal instructions, is provided to all party members with every Narrows overnight backcountry permit. It is a lightweight, sanitary way to pack out waste. The bag-within-a-bag design and ziplock closure securely contains waste and odor, while the blend of polymers breaks down waste and turns it into a deodorized gel. The contents of the bag are safe for landfills and may be deposited in the trash. Use of this waste disposal system is strongly encouraged for all Narrows hikers as a means for protecting the Virgin River.

Transportation

If you are hiking the Narrows from top to bottom, there are several transportation options:

- If you have two vehicles, you can shuttle yourself by parking one vehicle at Chamberlain’s Ranch and the other at the Zion Canyon Visitor Center.
- You may make arrangements with a local shuttle service.
- At the end of your hike at the Temple of Sinawava, you must catch the Zion Canyon shuttle to the visitor center. Plan your hike so you do not miss the last shuttle.

Directions to Chamberlain’s Ranch Chamberlain’s Ranch is a 1½-hour drive from Zion Canyon, along paved and dirt roads. The dirt roads are passable for normal cars only when dry. When wet, they may be impassable even for 4-wheel-drive vehicles. Snow closes the road in winter. From the park’s East Entrance station, drive 2½ miles east on Route 9. Turn left on a paved road and continue 18 miles to a bridge that crosses the North Fork of the Virgin River. Turn left beyond the bridge and drive ¼ mile to the gate of Chamberlain’s Ranch. Please close the gate behind you. Drive ½ mile further and park just before the road crosses the



Deep in The Narrows

river. To begin your hike, cross the river and follow the road for approximately 3 miles. Enter the river at the end of the road past the old cabin. Chamberlain’s Ranch is a private ranch outside Zion National Park. Please respect private property.

Group Size Limit for The Narrows

Large groups produce increased impacts on the backcountry. Group size is limited to a maximum of 12 people sharing the same affiliation (school, club, scout troop, family, friends) in the same drainage, route, or backcountry trail on the same day. This is strictly enforced; violators will be cited.

Preparation

Footwear Hiking The Narrows is like walking on slippery bowling balls. It requires balancing on algae-coated rocks in the middle of a swiftly flowing river. Sturdy footwear is essential. Hiking boots with good ankle support are best. Sandals and bare feet are not appropriate—they result in twisted ankles and crushed toes.

Clothing Even in mid-summer The Narrows is chilly. The water is cold, breezes blow steadily, and very little sunlight penetrates to the canyon floor. Although you’ll

probably hike in shorts (nylon shorts are best—cotton ones will stay wet), take plenty of extra warm clothing. Clothing made of wool or synthetic fibers provides the best insulation.

Drinking Water Water in the Virgin River and its springs is not safe to drink untreated. It has passed over rangeland and may be contaminated with an illness-causing bacteria called giardia. Either treat the water you collect by filter, tablets, or by boiling, or carry in all the water you’ll need. Drink one gallon of water per person per day.

Walking Stick To help maintain your balance, a walking stick is recommended. Hiking The Narrows without one increases your chance of injury and fatigue. Walking sticks are sometimes found in an informal depository at the north end of the Riverside Walk or may be purchased or rented in town. Cutting trees or bushes to make a walking stick is strictly prohibited, in the park and at Chamberlain’s Ranch.

Water Depth Water level varies in The Narrows. Under ideal conditions, when flow is under 70 cubic feet per second, most crossings are around knee-deep. Higher flows mean higher water, a stronger current, and may include wading in waist-deep water. Be prepared to swim. Even when the river is low, chest-deep holes are common.

Waterproofing Even the most experienced hikers fall occasionally in The Narrows. It is therefore a good idea to waterproof your belongings. Many hikers line their packs with large plastic garbage bags. Smaller, resealable bags provide extra protection for cameras and other valuables.

Recommended Equipment

- hiking boots with ankle support
- walking stick
- shorts while hiking
- extra dry, warm clothes
- extra food and water
- flashlight and spare batteries
- first aid kit
- plastic bags for waterproofing gear



Good route finding, solid skills, and good judgement are needed to navigate the rugged terrain of Zion.

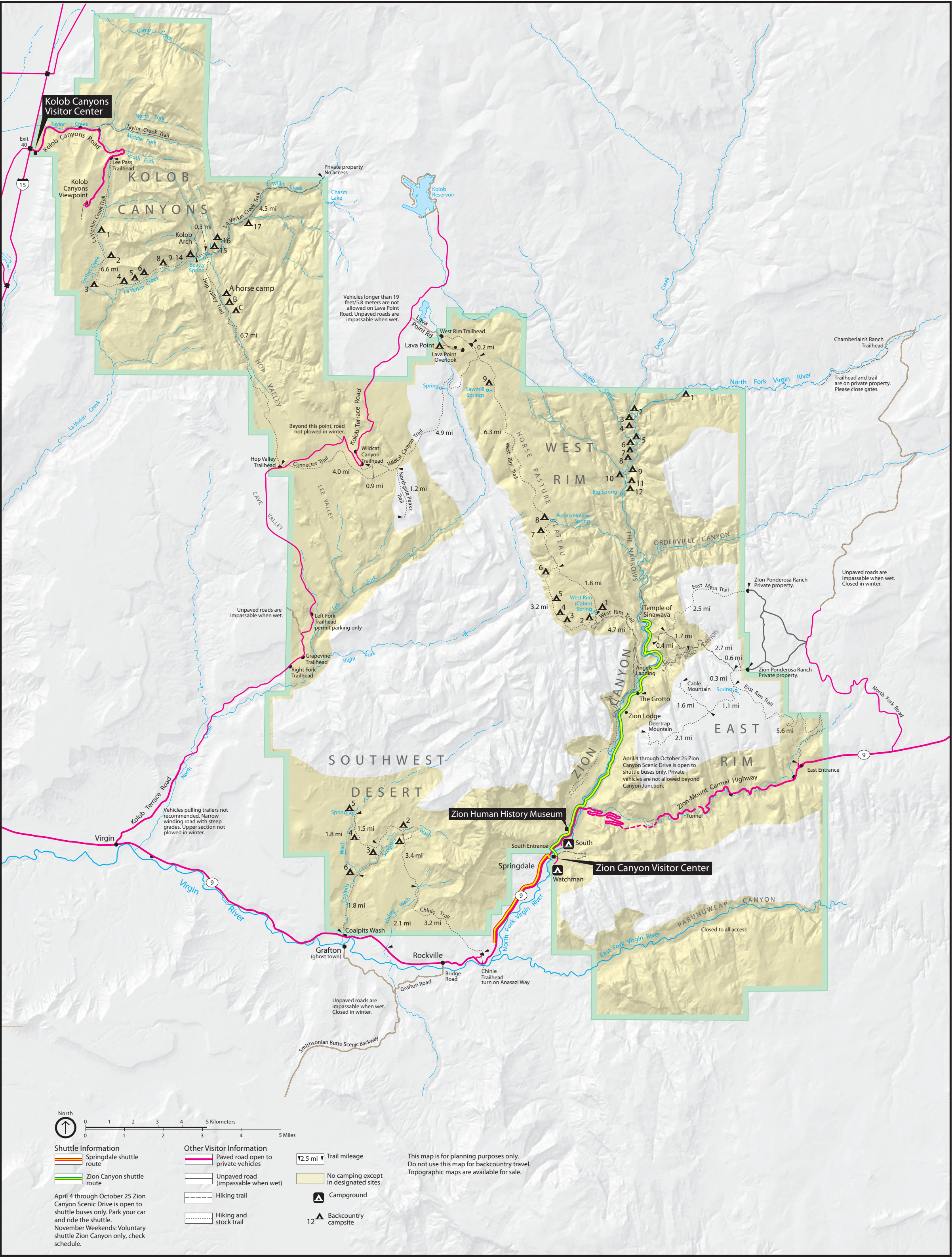
- trash bags for packing out food scraps and toilet paper
- sunscreen, sunglasses, and hat (near Chamberlain’s Ranch the hike is exposed)
- topographic map (available for purchase at visitor centers)
- Obtain an accurate weather and flash flood potential forecast.

Hiking Timetable	Hours
Chamberlain’s Ranch parking	0
Old Cabin	1:00
First Narrows	3:30
Waterfall	4:15
Deep Creek	5:00
Kolob Creek	5:45
The Grotto	6:00
Goose Creek	6:35
Big Springs	7:20
Orderville Canyon	10:00
Riverside Walk	11:50
Temple of Sinawava	12:20
Track your progress by recognizing side canyons; Deep Creek, Kolob Creek, the Grotto, and Big Springs. Watch closely for the mouth of Goose Creek.	



No matter how hot the air temperature, the water is always cold.

Backcountry Planning Map



Backcountry Campsites

West Rim		Zion Narrows		Kolob Canyons		Southwest Desert	
Site Number	Max Group Size	Site Number	Max Group Size	Site Number	Max Group Size	Site Number	Max Group Size
1	12	1	6	1	4	1	6
2	on-line 2	2	on-line 4	2	on-line 4	2	on-line 6
3	4	3	on-line 4	3	6	3	6
4	on-line 12	4	on-line 6	4	on-line 7	4	6
5	4	5	2	5	on-line 4	5	on-line 6
6	on-line 6	6	on-line 6	6	4	6	on-line 6
7	4	7	12	7	removed	7	12
8	on-line 6	8	6	8	2		
9	6	9	on-line 6	9	6		
		10	6	10	on-line 2		
		11	4	11	12		
		12	on-line 12	12	8		

On-line: Reservations and permits are available for these campsites on-line at www.nps.gov/zion.

Lava Point
Primitive campground, 6 sites, pit toilets, no water, no reservations, no fee. Closed in winter.

Permits and Reservations www.nps.gov/zion

PERMITS ARE REQUIRED FOR ANY OVERNIGHT TRIPS IN THE BACKCOUNTRY, INCLUDING CLIMBING bivouacs, all through hikes of the Virgin River and tributaries, and all canyons requiring the use of descending gear or ropes, including the Subway. Reservations for a permit may be made in advance. Reservations are not required, but may save time and avoid disappointment and changed plans. What’s the difference between a reservation and a permit? An analogy would be making a motel reservation—the motel holds a room for you, but you don’t get the key until you arrive. A backcountry reservation holds a permit in your name, but you don’t get the actual permit until check-in.

Walk-in Permits
Walk-in permits are available for all areas in Zion National Park. At least 25% of all permits are available for walk-ins. Walk-in permits are available the day before or the day of your trip. Difficult to obtain permits include the Subway, Mystery Canyon, The Narrows on weekends, the West Rim during the spring, and all areas on holiday weekends. You’ll have greatest success obtaining walk-in permits if you arrive at the Zion Canyon Backcountry Desk as soon as it opens the day before your intended trip.

Reservations
Lottery Reservations The two most difficult to obtain permits at Zion National Park are The Subway and Mystery Canyon. An on-line lottery is used to provide a fair opportunity for all interested visitors to compete for the permits. The deadline for entry into the lottery is listed in the chart. Visitors are limited to one lottery entry each month for each area. A non-refundable

\$5.00 fee is charged for each lottery entry. The lottery does not apply for trips in November through March.

Calendar Reservations Reservations are available on-line for a wide variety of canyon, backpack, and climbing trips. They are available on a first come/first served basis starting on the dates listed in the chart up to 5 p.m. the day before your trip. A non-refundable \$5.00 fee is charged for each calendar reservation. The number of calendar reservation requests per visitor is not limited. A list of canyoneering and backpacking areas, use limits, and group size limits is on page 10. Many of the reservable spaces for the Subway and Mystery Canyon may already be taken by lottery entrants prior to calendar reservations becoming available.

Climbing Trips Reservations are available on-line for eight of the park’s most popular climbing routes—Lunar Ecstasy, Space-shot, Moonlight Buttress, Prodigal Son,

Touchstone, Desert Shield, Monkeyfinger, and Tricks of the Trade. The number of climbers on Zion’s walls is not limited, but a reservation is necessary to obtain an on-line permit (see Zion Express Permits).

Other Areas Reservations and permits for canyon trips, backpacking trips, and climbing trips not listed as available for reservations are available as walk-in permits.

Zion Express Permits
Permits are available on-line to those who live in the area and want an early start. The entire permit process can be completed over the Internet. There are two requirements to obtain on-line permits. First, you

must be a member of the Zion Express Permit Program. To become a member, simply visit the Zion Canyon Backcountry Desk once every three years. You’ll be asked to complete a short orientation and sign a program agreement. Membership for those who signed up in 2007 will be valid through 2009. And second, you must have a reservation for your permit.

- Reservations and on-line permits are available until 5 p.m. the day before your trip.
- Express permit members can get permits three days before their trip. For example, canyoneers wanting trips on Thursday, Friday, and Saturday can get all three permits on-line Wednesday. Avoid lines, use express permits!

Reservation Dates		
For a trip in	Lottery applications must be received in	Calendar Reservations become available
April	January	February 5
May	February	March 5
June	March	April 5
July	April	May 5
August	May	June 5
September	June	July 5
October	July	August 5
November		September 5
December		October 5
January		November 5
February		December 5
March		January 5

Canyoneering: 10 Essentials

1 Back-up Equipment
The ability to stop, move up, or down while hanging mid-rope is a lifesaving skill that must be learned before you need it! Can you create extra friction? Do you have ascenders? Can you belay the less experienced members of your party?

2 Weather Forecast/Flash Flood Potential
Check it out—when in doubt, stay out!

3 Map and Route Description
You must have them and know how to use them.

4 Anchor Equipment
Are anchors still good? How long has that webbing hung there? Bolting Checklist • Is there another safe method of creating this anchor? •Will the bolt that I am placing safely last for years? •Am I aware that power drills are prohibited in Zion National Park?

5 Extra Clothing
Could you survive an unexpected night out in the canyon?

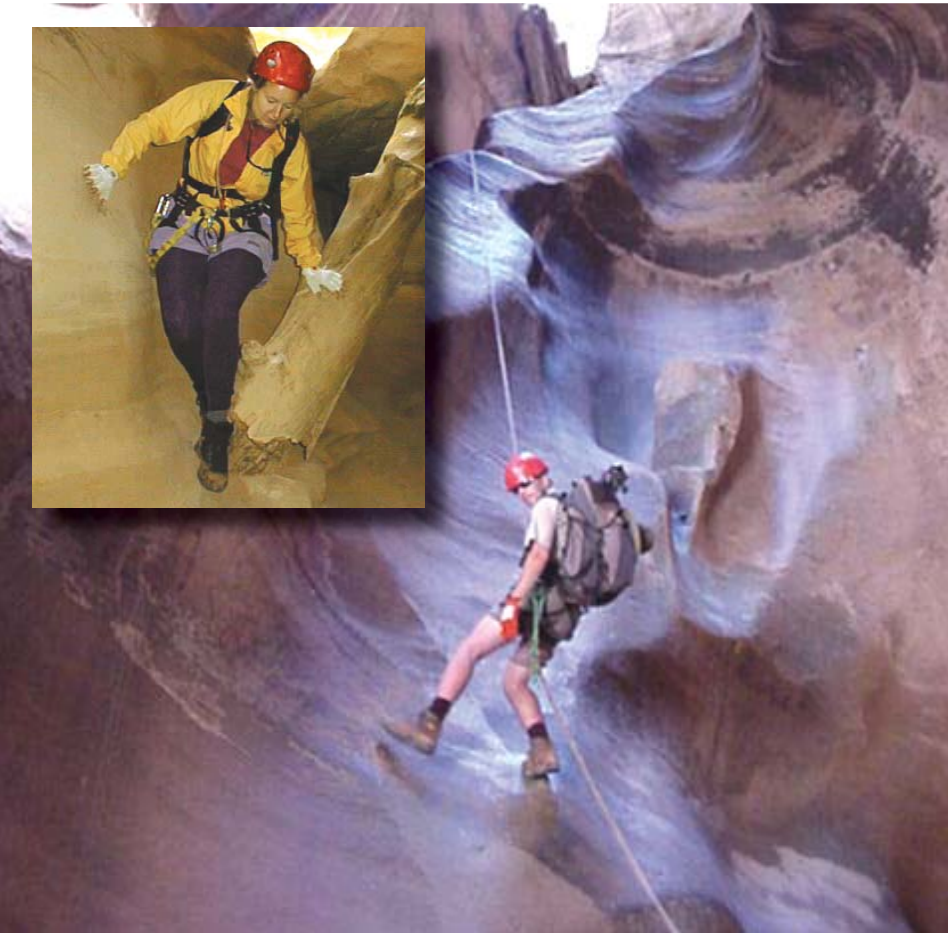
6 Extra Food
Helps you keep your energy up and stay warm if you have to spend the night out.

7 Water
Drink one gallon of water per person per day.

8 Flashlight/Headlamp
It may mean the difference between getting out or spending the night in the canyon.

9 Helmet
Rocks fall.

10 First Aid Kit
Lighten Your Load
Cell phones and GPS units rarely work in Zion’s narrow canyons. Don’t count on them!



Is your rope long enough? Can you provide extra friction? Can you climb back up?

Inset: Helmets and gloves are recommended.

Canyoneering Safety: What is Your Plan B?



Orderville Canyon
On June 11, 2004, a 31-year-old woman was descending Orderville Canyon. She needed to get to the bottom of an eight foot waterfall. Instead of down climbing or using a rope, she jumped. Unbeknownst to her, the pool that she chose as her landing zone was shallow, and its rocky bottom was uneven. Her ankle snapped, and appeared to be deformed. The injury occurred at 3 pm. After a difficult and painful carryout and ambulance ride, she arrived at the hospital in Saint George at 11 pm.

Lower leg injuries are the most common injuries suffered by visitors to Zion’s backcountry. The most common cause of serious lower leg injuries is jumping. *Do not jump.* It’s an especially bad idea to jump into a pool of water. Use a rope.

The Subway
On August 6, 2004, a Boy Scout group was descending The Subway. A 14-year-old boy was not traveling with the adult leaders. He missed a critical right hand turn, and began working his way down a steep slope. The boy took a tumbling 40 foot fall and landed in the bottom of the canyon. He suffered serious head, back, and internal injuries.

Even heavily traveled canyons in Zion are routes, not maintained trails. Do you have a map and a route description? Are you confident in your ability to use them? Is your group traveling together?

Behunin Canyon
On November 29, 2004, a group of two was attempting the last rappel in Behunin Canyon after dark. They threw their ropes off a ledge, and a 27-year-old male began his descent. The ends of his ropes were caught in bushes, and he rappelled into the belly of his ropes. He was one hundred feet off the ground, free hanging in mid-air. He was not able to continue his descent. And, he had no way to go back up his rope. Visitors in the Emerald Pools area heard his cries for help.

What would you do? Can you stop yourself mid-rappel to correct a problem? Can you ascend back up your rope? Could you assist another group member when they have difficulty? If you answered ‘no’ to any of these questions, consider taking a canyoneering course before heading out on your own.

Keyhole Canyon
On June 22, 2004, a group of seven people attempted Keyhole Canyon. The group included a seven-year-old and a one-year-

old infant. After completing one rappel, and one frigid swim, they decided that they could not safely continue their trip. So, they spent a very cold night in the canyon. Rangers rescued the group the following morning.

Can all members of your group safely complete the trip? Do not be afraid to say no to inexperienced friends. Do you have a plan B? Do you have a headlamp and other equipment to travel after dark? Do you

have extra warm clothes and food in case you have to spend the night? Will someone report you missing if you are overdue?

Always Have a Plan B
There is no substitute for planning ahead, taking the proper equipment, having the right skills, and using sound judgement. Being smart can make the difference between having a wonderful trip or ending up in the hospital—or worse.



This injured hiker is coming out of The Narrows. The canyoneer (top) is being lifted out of Pine Creek. Zion’s search and rescue team is highly skilled, but the best option is not to need them. Plan ahead and use good judgement.

Backpacking

Kolob Canyons
Season: Spring and fall are ideal seasons for hiking in LaVerkin Creek. Temperatures are typically five to ten degrees cooler than Zion Canyon. Trails are frequently snow covered in winter, and summer temperatures regularly top 100 degrees. **Description:** Hiking in a red-walled valley bottom next to a flowing stream. Camping is limited to designated campsites. **Suggested Itinerary:** An excellent two-night backpack can be accomplished by hiking to one of several campsites near Kolob Arch (7 miles one way). The middle day can be spent day hiking to Kolob Arch, Bear Trap Canyon, or upper LaVerkin Creek.

West Rim Trail
Season: Late spring and fall are ideal times for hiking the West Rim. Temperatures are usually ten to fifteen degrees cooler than Zion Canyon. The trail is typically snow covered from December through April. **Description:** Hiking along a series of canyon rims with panoramic views. Camping is permitted in designated campsites. Water may be available at Cabin, Potato Hollow, and Sawmill Springs. Check with rangers for water availability. **Suggested Itinerary:** A difficult, but rewarding, one night-backpack can be accomplished by hiking from the Grotto to one of the campsites near Cabin Spring (5 miles, 2200-foot elevation gain, one way). A more moderate West

Rim trip involves hiking from Lava Point to a campsite near Potato Hollow (5 miles, 1200-foot elevation change, one way).

Other Routes
The backcountry planning map on pages 6 and 7 shows where camping is limited to designated campsites (yellow areas; Narrows, West Rim, and LaVerkin Creek). In other areas, at-large camping is permitted. Water and/or maintained trails are not always available in the at-large camping areas. Permits are required, and visitors are required to camp one mile from roads, out of sight of trails, and ¼ mile from springs.

Extended Trips
Trips up to 50 miles can be made in Zion’s backcountry by combining the LaVerkin Creek, Hop Valley, Wildcat Canyon, West Rim, and East Rim Trails. The route crosses several roads, so shorter versions are also possible. A vehicle shuttle is necessary.

Judgement
Whether hiking, climbing, or driving, *your safety depends on your own good judgement, adequate preparation, and constant attention.* Don’t ruin your vacation by having an accident. *Your safety is your responsibility.*

Steep Cliffs
Falls from cliffs on trails have resulted in death. Loose sand or pebbles on stone are

very slippery. Be careful of edges when using cameras or binoculars. Never throw or roll rocks—there may be hikers below. Trails can be snow and ice covered in winter. •Stay on the trail. •Stay back from cliff edges. •Observe posted warnings. •Parents—watch your children!

Water
The desert is dry. Carry and drink water: one gallon per person per day for everyone in your group. Water is available at visitor centers, campgrounds, and Zion Lodge. Do not drink untreated water. Water flow at springs can vary; check for recent information at visitor centers.

Hypothermia
Hypothermia occurs when the body is cooled to dangerous levels. It is the number one killer of outdoor recreationists, and it usually happens without the victim’s awareness. It is a hazard in narrow canyons, even in summer, because immersion in cold water is the quickest route to body heat loss. To prevent hypothermia, avoid cotton clothing (it provides no insulation when wet) and eat high energy food before you are chilled. Signs of hypothermia: •Uncontrollable shivering. •Stumbling and poor coordination. •Fatigue and weakness. •Confusion or slurred speech. If you recognize any of these signs, stop hiking and immediately replace wet cloth-

ing with dry clothing. Warm the victim with your own body and a hot drink. Shelter from breezes. A pre-warmed sleeping bag will help prevent further heat loss.

Heat Exhaustion
Heat exhaustion occurs when the body loses more fluid than is taken in. Signs of heat exhaustion include nausea, vomiting, fatigue, headaches, pale appearance, stomach cramps, and cool clammy skin. If you or a member of your party begin to experience any of these symptoms, it is essential that you stop your hike. Find a cool, shady area. Rest with your feet up to distribute fluids throughout your body. It is important to drink fluids, but it is also important to eat. Drinking lots of fluids and not eating, while suffering from heat exhaustion, can lead to a potentially dangerous condition of low blood salt. If heat exhaustion symptoms persist for more than two hours, seek medical help.

Heat stroke is an advanced stage of heat exhaustion. It is the body’s inability to cool itself. Symptoms include confusion, disorientation, and behavior changes. Seizures may occur. A person may still be sweating. If you believe that a member of your party is suffering from heat stroke, it is imperative to cool them using any available means; and obtain immediate medical assistance.

Backcountry Management

After a five year process, Zion National Park completed a backcountry management plan in 2007. Standards were developed to measure the health of natural resources and a social survey was completed to quantify the number of encounters people considered desirable

and acceptable while experiencing wilderness. These two standards were combined with existing management zones to create overall use limits and group size limits. The use limits will be evaluated each year, and they will change as conditions warrant.

Backcountry Use Limits 2008				
Area	Use Limit	Limiting Factor	Spaces Available By Reservation	Group Size Limit
Zion Narrows	12 groups/night 40 day users/day	Social/Primitive Zone	6 groups/night 24 people/day	12
LaVerkin Creek	17 groups/night	Social/Primitive Zone. Day use is currently not limited.	6 groups/night	12
West Rim	9 groups/night	Social/Primitive Zone. Day use is currently not limited.	4 groups/night	12
Southwest Desert	6 groups/night	Social/Primitive Zone.Day use is currently not limited.	3 groups/night	12
Subway (Left Fork)	80 people/day	Social/Primitive Zone.	60 People/day	12
Pine Creek Canyon	50 people/day	Wildlife protection/Primitive Zone*	30 People/day	12
Keyhole Canyon	80 people/day	Social/Primitive Zone.	60 People/day	12
Orderville Canyon	50 people/day	Wildlife protection/Primitive Zone*	30 People/day	12
Spry Canyon	20 people/day	Social/Pristine Zone.	14 People/day	6
Mystery Canyon	12 people/day	Eroded access trail/Pristine Zone.	6 People/day	6
Behunin Canyon	12 people/day	Wildlife protection/Pristine Zone*	6 People/day	6
Echo Canyon	12 people/day	Wildlife protection/Pristine Zone*	6 People/day	6
*Where nesting season is a limiting factor, use limits will be raised either from 12 to 20 or from 50 to 80 people/day outside the nesting season (March 1 through August 31).				

Flash Floods



The debris on this rock marks the depth of the last flash flood. Hikers have died in flash floods by ignoring the laws of nature. Poor judgement puts you and your friends at risk.

ALL NARROW CANYONS ARE POTENTIALLY HAZARDOUS. FLASH FLOODS, OFTEN FROM STORMS miles away, present a real danger and can be life threatening. By entering a narrow canyon you are assuming a risk. *Your safety is your responsibility.* During a flash flood—the water level rises instantly—within minutes or seconds. Water can rush down canyon in a wall twelve feet high or more.

For Your Safety
Know the weather and flash flood potential forecasts before starting your trip. If bad weather threatens, do not enter a narrow canyon. *Make informed decisions.*

As A Last Resort
Watch for these signs of a possible flash flood:
• Any deterioration in weather conditions.
• Build up of clouds or sounds of thunder.
• Sudden changes in water clarity from clear to muddy. May be accompanied by floating debris.
• Rising water levels or stronger currents.
• Increasing roar of water up canyon.

If you have the misfortune to observe any of these signs:
• Seek higher ground *immediately.* Do not try to beat a flash flood out of a canyon.
• Remain on high ground until conditions improve. Water levels usually drop within 24 hours.
• If caught in an area with no high ground, try to take shelter behind a jutting fin of rock that may break the initial mass of water and debris. It may be possible to wedge yourself into a crack above water level. Even climbing a few feet may save your life.

The Best Defense
Use good judgement *before* you go. If in doubt, stay out.



This flash flood took place in North Creek on July 25, 2002. It happened in seconds.

The water is so powerful, it tumbles logs and large boulders. A hiker caught in this would not survive—they would be knocked down and battered to death.

Maps & Guides

The Zion Natural History Association sells maps and guides, as well as other books, at park visitor centers. ZNHA may be contacted for phone or mail orders: Zion Natural History Association, Zion National Park, Springdale, UT 84767, (800) 635-3959 or (435) 772-3264 or for on-line orders: www.zionpark.org.

ZNHA is a non-profit membership organization which supports the scientific, educational, historical, and interpretive activities of the park. Members receive a 20% discount.

Area Guides

Hiking Zion and Bryce Canyon National Parks Eric Molvar and Tamara Martin. An illustrated guide to the breathtaking slick-rock canyons and towering cliffs of southwest Utah. \$16.95

Hiking the Southwest's Geology, Four Corners Region Ralph Lee Hopkins. Information on 50 hikes includes the landscape and geologic features along each trail. \$16.95

Hiking the Southwest's Canyon Country Sandra Hinchman. Describes backpacking, day hikes, and canyon routes. \$16.95

Hiking Utah A Falcon guide by David Hall. \$15.95

Zion: Canyoneering Tom Jones. Descriptions of trail hikes, off-trail hikes, and technical canyoneering routes. \$19.95

Desert Rock Eric Bjornstad. Rock climbing routes in National Parks of the Colorado Plateau. \$25.00

Rock Climbing Utah A Falcon guide by Stewart M. Green. The essential guide for planning climbing trips in Utah. \$26.95

How To Books

Desert Hiking Tips Bruce Grubbs. Covers desert tips from drinking water to flash floods. \$6.95

Backpacking Tips Bill and Russ Schneider. \$7.95

Leave No Trace Will Harmon. The official Leave No Trace manual of the American Hiking Society, pocket-size. \$6.95

Reading Weather Jim Woodmency. Weather basics to help you avoid bad weather on your outdoor adventures, pocket-size. \$6.95

Route Finding Gregory Crouch. Pocket-size guide to map and compass navigation. \$6.95

Emergency Survival, A Pocket Guide Christopher Van Tilburg, M.D. Quick information for outdoor safety. \$3.50

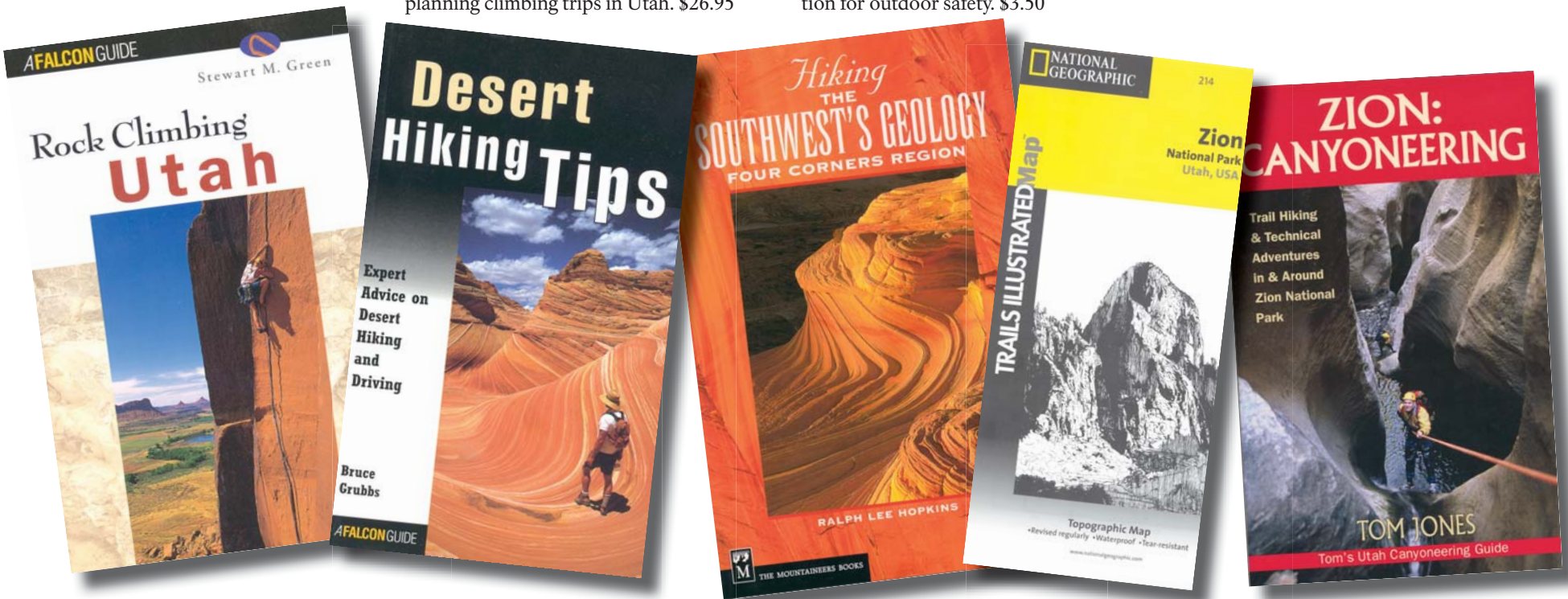
Maps

Zion Topographic Map Scale 1:37,700 39 x 25" Backcountry and hiking information, paper, folded. \$3.95

Trails Illustrated Topo Map of Zion National Park Scale approximately 1:37,700 30 x 25" Backcountry and hiking information, waterproof, tear resistant, folded. \$11.95

St George & Springdale, Utah Trail Map Scale 1:25,000, 27 x 39" Hiking information, waterproof, tear resistant, folded. \$10.99

USGS Topographic Maps Scale 1:24,000, 7.5 minute quads. Paper, rolled. \$6.00 each. Kanarraville, Kolob Arch, Kolob Reservoir, Cogswell Point, Smith Mesa, Guardian Angels, Temple of Sinawava, Clear Creek, Springdale West, Springdale East, The Bar-racks.



Weather & Climate

Month	J	F	M	A	M	J	J	A	S	O	N	D
Temperature (°F)												
normal daily max	52	57	63	73	83	93	100	97	91	78	63	53
normal daily min	29	31	36	43	52	60	68	66	60	49	37	30
extreme high	71	78	86	94	102	114	115	111	110	97	83	71
extreme low	-2	4	12	23	22	40	51	50	33	23	13	6
days above 90°F	0	0	0	1	8	21	30	28	18	3	0	0
days below 32°F	19	14	10	3	0	0	0	0	0	1	9	18
Precipitation (inches)												
normal	1.6	1.6	1.7	1.3	0.7	0.6	0.8	1.6	0.8	1.0	1.2	1.5
maximum	7.5	6.7	7.1	4.4	3.0	4.0	3.6	4.8	6.7	3.3	3.2	4.3
max 24 hour	1.6	1.3	0.9	1.2	1.8	2.2	1.1	1.6	1.4	1.3	1.3	2.0
maximum snowfall	26	18	14	3	T	0	0	0	T	1	5	21
days w/precipitation	7	7	8	6	5	3	5	6	4	4	5	6
no. thunderstorms	0	0	0	1	4	5	14	15	5	2	0	0

